

His₆-NEDP1, human recombinant

Cat. No. SSB-DE0025

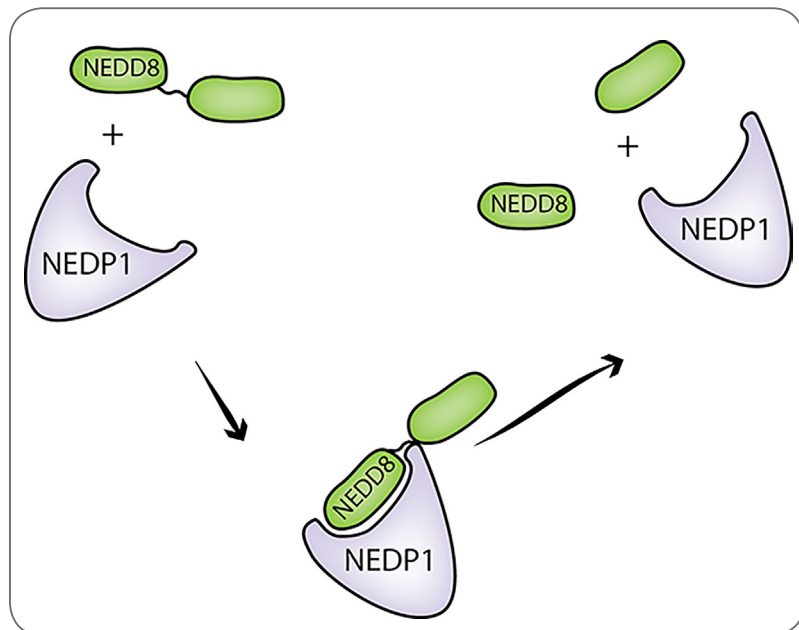
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His₆-NEDP1

NEDP1 (neuronal precursor cell expressed developmentally down-regulated gene 8)-is a deconjugating enzyme with specificity towards NEDDylated substrates. NEDP1 discriminates between ubiquitinated and NEDDylated targets, despite similar C-terminal regions. NEDP1 is important in regulating cullin associated ubiquitin ligase enzymes such as those of the SCF(Skp-Cullin-Fbox) family and subsequently, it's important in regulating cell cycle progression and other biological functions. This NEDP1 is recombinantly expressed in *E.coli*, and is N-terminally His₆-tagged.



Product Information

Quantity: 50µg **Molecular Weight:** 26.5 kDa

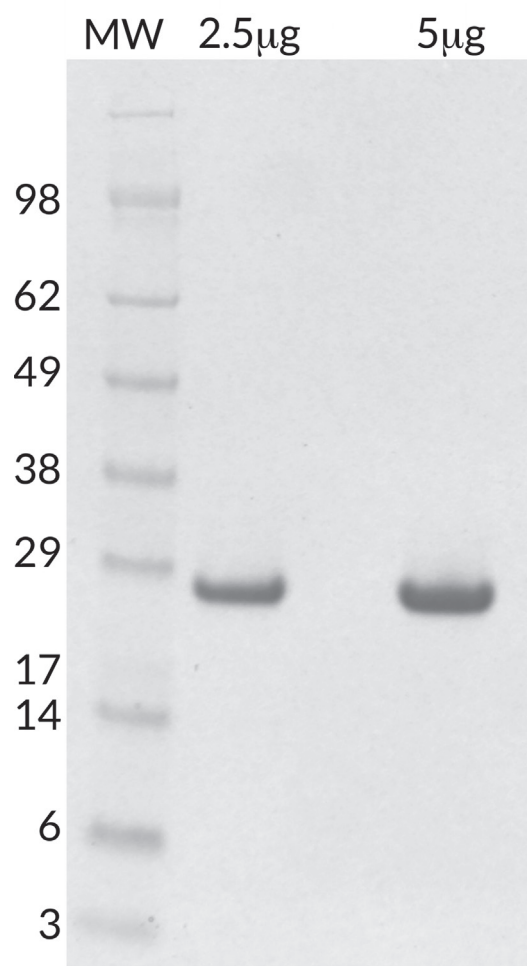
Concentration: 50 µM , 1.32 mg/mL

Purity: >95% by SDS-PAGE

Storage Buffer: 50 mM HEPES pH 7.5, 100 mM NaCl, 1 mM TCEP

Storage: -80C, Avoid multiple freeze / thaw

Quality Control and Performance Data



His₆-NEDP1 SDS-PAGE. From left to right, increasing amounts of His₆-NEDP1 loaded onto a 4-20% SDS-PAGE gel, stained with Coomassie brilliant blue. Purity is > 95%.

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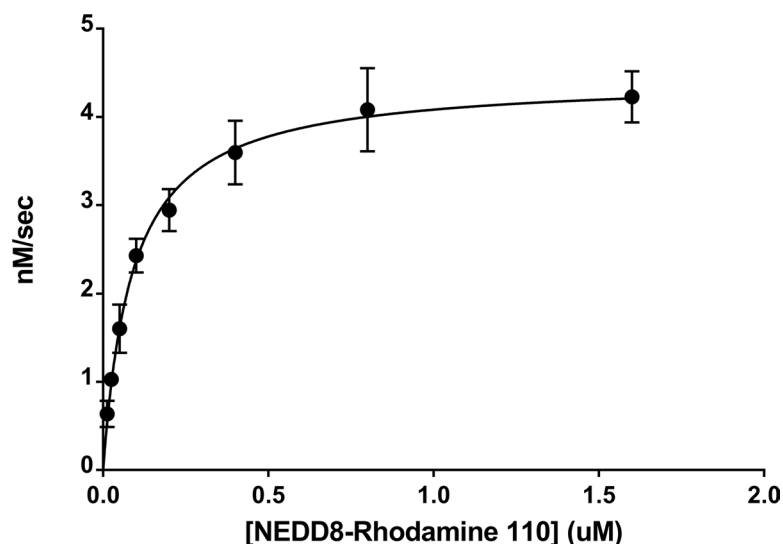
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Quality Control and Performance Data



NEDP1 Michaelis-Menten Kinetics. NEDD8 Rhodamine 110 serially diluted from 1.6 to 0.0125 uM was digested with 30pM NEDP1 over time. The assay was carried out in a reaction buffer of 50 mM HEPES pH 7.5, 1 mM TCEP, 0.1 mg/ml BSA, at 25C. Initial velocities at each substrate concentration were plotted and fit to the Michaelis-Menten equation. Kinetic parameters were calculated at: $K_m = 0.087 \mu\text{M}$, $V_{\max} = 4.44 \text{ nMs}^{-1}$, $k_{\text{cat}} = 148 \text{ s}^{-1}$, $k_{\text{cat}}/K_m = 1.70 \times 10^9 \text{ M}^{-1}\text{s}^{-1}$.

References

- 1) Mendoza, Heidi M., et al. "NEDP1, a highly conserved cysteine protease that deNEDDylates Cullins." *Journal of Biological Chemistry* 278.28 (2003): 25637-25643
- 2) Shen, Lin-nan, et al. "Structural basis of NEDD8 ubiquitin discrimination by the deNEDDylating enzyme NEDP1." *The EMBO journal* 24.7 (2005): 1341-1351

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